THE JOURNAL OF

Pathology

1998 Volume 184

Published in association with the
Pathological Society of Great Britain and Ireland

JPTLAS 184 (1–4) 1–448 (1998)
ISSN 0022–3417

Editor-in-Chief

Professor P. G. Toner
Institute of Pathology, Queen's University of Belfast, The Royal Hospitals, Grosvenor Road, Belfast BT12 6BL, UK

Associate Editors

Dr R. A. Walker: Associate Editor—Review Articles and Editorials
Department of Pathology, Clinical Sciences Building, PO Box 65, Leicester Royal Infirmary, Leicester LE2 7LX, UK

Dr M. Y. Walsh: Associate Editor—Administration
Department of Pathology, The Royal Hospitals, Grosvenor Road, Belfast BT12 6BL, UK

Aims and Scope

The main interests of the *Journal of Pathology* lie in the pathophysiological and pathogenetic mechanisms of human disease and in the application of such knowledge to diagnosis and prognosis. In determining content, the primary considerations are excellence, relevance and novelty.

The Journal welcomes investigative studies on human tissues, experimental studies *in vitro* and *in vivo*, and investigations based on animal models with a clear relevance to human disease, including transgenic systems. Methodological improvements in investigative and diagnostic pathology are also of interest. Correlative studies of pathological data and clinical outcomes are encouraged, but purely descriptive papers on diagnostic pathology are not considered central to the Journal's purpose. In general, studies which appropriately employ multiple investigative techniques are preferred over those which rely on a single methodology. Illustrations must be of the highest quality to be acceptable for publication. As well as original research papers, the Journal seeks to provide rapid publication in a variety of other formats, including editorials, review articles and other features, both contributed and solicited. Papers covering significant developments in teaching methods and in the practice of pathology may be acceptable, if they are of international scope and relevance. Correspondence from readers will be published if it is of general interest.

In summary, the Journal aims to serve as a bridge between basic biomedical science and clinical medicine. As a Journal of the Pathological Society of Great Britain and Ireland, it seeks to reflect the broad scientific interests of the Society's membership, but its ethos, authorship, content and purpose will be those expected of a leading publication in the international scientific literature.

International Advisory Board

Professor C. Baroni
Rome, Italy

Professor Sir C. L. Berry
London, UK

Professor C. C. Bird
Edinburgh, UK

Dr W. H. Clark
Boston, USA

Dr D. L. Cooper
Pittsburgh, USA

Professor D. W. Henderson
Adelaide, S. Australia

Dr H. Hofler
Munich, Germany

Professor P. G. Isaacson
London, UK

Dr M. Kikuchi
Fukuoka, Japan

Professor G. Kloppel
Kiel, Germany

Professor D. P. Lane
Dundee, UK

Dr AS-Y. Leong
Adelaide, S. Australia

Professor L-M. Looi
Kuala Lumpur, Malaysia

Professor R. N. M. MacSween
Glasgow, UK

Dr A. Martinez-Hernandez
Memphis, USA

Dr M. Mathan
Tamilnadu, India

Professor J. O'D. McGee
Oxford, UK

Dr M. J. Merino
Bethesda, USA

Professor G. K. Michalopoulos
Pittsburgh, USA

Professor J. Polak
London, UK

Professor S. G. Silverberg
Washington DC, USA

Professor R. Sinniah
Singapore

Professor M. Sobrinho-Simoes
Porto, Portugal

Professor E. Solcia
Pavia, Italy

Dr H. Stein
Berlin, Germany

Professor E. Tahara
Hiroshima, Japan

Dr K. Watanabe
Isehara, Japan

Dr N. Weidner
San Francisco, USA

Dr R. S. Weinstein
Tucson, USA

Professor Sir E. D. Williams
Cambridge, UK

Professor D. H. Wright
Emeritus Editor-in-Chief,
Southampton, UK

Professor N. A. Wright
London, UK

Professor A. D. H. Wyllie
Edinburgh, UK

Editorial Board

Dr F. T. Bosman
Lausanne, Switzerland

Dr D. Cotton
Sheffield, UK

Dr K. A. Fleming
Oxford, UK

Dr S. Fleming
Edinburgh, UK

Professor C. S. Foster
Liverpool, UK

Dr A. K. Foulis
Glasgow, UK

Professor B. Gusterson
Sutton, UK

Dr C. S. Herrington
Liverpool, UK

Professor C. J. Kirkpatrick
Mainz, Germany

Professor J. Lowe
Nottingham, UK

Dr S. Lucas
London, UK

Dr J. M. Nesland
Oslo, Norway

Dr G. Niedobitek
Birmingham, UK

Dr B. C. Portmann
London, UK

Dr P. Quirke
Leeds, UK

Dr G. Stamp
London, UK

Dr S. Stewart
Cambridge, UK

Dr D. Tarin
Oxford, UK

Professor M. Wells
Sheffield, UK

Professor D. Wynford-Thomas
Cardiff, UK

Copyright © 1998 John Wiley & Sons, Ltd

VOLUME 184, NUMBER 1 JANUARY 1998

Editorial

Chromosome Translocations in Sarcomas and the Analysis of Paraffin-Embedded Material: J. Shipley and C. Fisher 1

Mini-Review

TGFβ—A Role in Systemic Sclerosis?: S. A. Cotton, A. L. Herrick, M. I. V. Jayson and A. J. Freemont 4

Original Papers

Dual-Colour Fluorescence *in situ* Hybridization Analysis of Synovial Sarcoma: P. Yang, T. Hirose, T. Hasegawa, K. Hizawa and T. Sano 7

No $p16^{INK4A}$/CDKN2/MTS1 Mutations Independent of p53 Status in Soft Tissue Sarcomas: A. Meye, P. Würl, R. Hinze, D. Berger, M. Bache, H. Schmidt, F-W. Rath and H. Taubert 14

Cell Proliferation Studies in Primary Synovial Chondromatosis: R. I. Davis, H. Foster, K. Arthur, S. Trewin, P. W. Hamilton and D. J. Biggart 18

Expression of Growth Factors and Their Receptors in Adamantinoma of Long Bones and The Implication for Its Histogenesis: J. V. M. G. Bovée, L. J. C. M. van den Broek, W. I. de Boer and P. C. W. Hogendoorn 24

Human Tumour-Associated Macrophages Differentiate into Osteoclastic Bone-Resorbing Cells: J. M. W. Quinn, J. O'D. McGee and N. A. Athanasou 31

Expression of Gap Junction Proteins Connexin 26 and Connexin 43 in Normal Human Breast and in Breast Tumours: S. Jamieson, J. J. Going, R. D'Arcy and W. D. George 37

Expression of Growth Factors, Growth-Inhibiting Factors, and Their Receptors in Invasive Breast Cancer. I: An Inventory in Search of Autocrine and Paracrine Loops: J. S. de Jong, P. J. van Diest, P van der Valk and J. P. A. Baak 44

Expression of Growth Factors, Growth-Inhibiting Factors, and Their Receptors in Invasive Breast Cancer. II: Correlations with Proliferation and Angiogenesis: J. S. de Jong, P. J. van Diest, P van der Valk and J. P. A. Baak 53

Lack of Genetic Changes at Specific Genomic Sites Separates Renal Oncocytomas from Renal Cell Carcinomas: J. Herbers, D. Schullerus, J. Chudek, P. Bugert, H. Kanamaru, J. Zeisler, B. Ljungberg, M. Akhtar and G. Kovacs 58

Predicting the Risk of Metachronous Colorectal Cancer in Patients with Rectosigmoid Adenomas using Quantitative Pathological Features. A Case-Control Study: G. A. Meijer, J. P. A. Baak, I. C. Talbot, W. S. Atkin and S. G. M. Meuwissen 63

Non-Radioactive Measurement of Telomerase Activity in Human Bladder Cancer, Bladder Washings, and in Urine: B. Heine, M. Hummel, M. Müller, R. Heicappell, K. Miller and H. Stein 71

Immunohistochemical Detection of Ribosomal Transcription Factor UBF: Diagnostic Value in Malignant Specimens: A. Torres-Montaner, J. Bolivar, M. Ortiz and M. M. Valdivia 77

Expression Patterns of Cyclins D1 and E in Condyloma Acuminatum in Comparison with Psoriatic Proliferative Lesions: J. L. Mate, A. Ariza, X. Roca, D. López, C. Ferrándiz, J. Pérez-Piteira and J. J. Navas-Palacios 83

The C-X-C Chemokine Mig is Highly Expressed in the Papillae of Psoriatic Lesions: M. Goebeler, A. Toksoy, U. Spandau, E. Engelhardt, E-B. Bröcker and R. Gillitzer 89

Differentiation of BCG-Induced Lymphadenitis from Tuberculosis in Lymph Node Biopsy Specimens by Molecular Analyses of *pncA* and *oxyR*: J-J. Yan, F-F. Chen, Y-T. Jin, K-C. Chang, J-J. Wu, Y-W. Wang and I-J. Su 96

Multiple Organ Involvement During Experimental Cytomegalovirus Infection is Associated with Disseminated Vascular Pathology: M. C. J. Persoons, F. S. Stals, M. C. E. Van Dam Mieras and C. A. Bruggeman 103

Medical Education

Pathology and the OSCE: Insights from a Pilot Study: E. W. Benbow, I. Harrison, T. L. Dornan and P. A. O'Neill 110

Letters to the Editor

Diagnostic Discord with Melanoma: D. N. Slater 115

Author's Reply: M. G. Cook 115

Breast Screening Evaluation: T. J. Anderson, F. Alexander and J. Warner 116

Authors' Reply: W. K. Cowan 117

Announcements 118

Indexed or abstracted by 'BIOMED Database (Institute for Scientific Information-ISI)', 'BIOSIS', 'CAB Abstracts Online Database (CABI)', 'Cambridge Scientific Abstracts', 'Chemical Abstracts Service', 'Current Awareness in Biological Sciences', 'Current Contents (CC)-Clinical Medicine', 'CC-Life Sciences', 'Current Opinion', 'Excerpta Medica', 'Index Medicus', 'Index Veterinarius (CABI)', 'Leeds Medical Information', 'Medical & Psychological Previews (MPPS)', 'NIOSHTIC Database', 'Reference Update', 'Research Alert (ISI)', 'Review of Medical & Veterinary Mycology (CABI)', 'Science Citation Index (ISI)', 'SCISEARCH Database (ISI)', 'Veterinary Bulletin (CABI)', 'VINITI-Russian Academy of Science'

VOLUME 184, NUMBER 2 FEBRUARY 1998

Editorial

Tumoural Vascularity as a Prognostic Factor in Cancer Patients: The Evidence Continues to Grow: N. Weidner 119

Review Article

Glomerular Pathology: Recent Advances: I. W. Gibson and I. A. R. More 123

Original Papers

Angiogenesis as a Prognostic Marker in Breast Carcinoma with Conventional Adjuvant Chemotherapy: A Multiparametric and Immunohistochemical Analysis: J. D. Jacquemier, F. M. Penault-Llorca, F. Bertucci, Z. Z. Sun, G. F. Houvenaeghel, J. A. Geneix, B. D. Puig, V. J. H. Bardou, J. A. Hassoun, D. Birnbaum and P. J. Viens 130

An Improved Procedure to Quantify Tumour Vascularity Using True Colour Image Analysis. Comparison with the Manual Hot-Spot Procedure in a Human Melanoma Xenograft Model: J. A. W. M. van der Laak, J. R. Westphal, L. J. M. Schalkwijk, M. M. M. Pahlplatz, D. J. Ruiter, R. M. W. de Waal and P. C. M. de Wilde 136

Clonal Overexpression of Metallothionein is Induced by Somatic Mutation in Morphologically Normal Colonic Mucosa: B. Jasani, F. Campbell, H. Navabi, K. W. Schmid and G. T. Williams 144

A Comparison of the Genetic Pathways Involved in the Pathogenesis of Three Types of Colorectal Cancer: I. Tomlinson, M. Ilyas, V. Johnson, A. Davies, G. Clark, I. Talbot and W. Bodmer 148

Expression of Oestrogen Receptor and Oestrogen-Inducible Genes pS2 and ERD5 in Large Bowel Mucosa and Cancer: S. Singh, R. Poulsom, A. M. Hanby, L. A. Rogers, N. A. Wright, M. C. Sheppard and M. J. S. Langman 153

Clinical Decision Making in Barrett's Oesophagus Can be Supported by Computerized Immunoquantitation and Morphometry of Features Associated with Proliferation and Differentiation: W. Polkowski, J. P. A. Baak, J. J. B. van Lanschot, G. A. Meijer, L. T. Schuurmans, F. J. W. Ten Kate, H. Obertop and G. J. A. Offerhaus 161

Expression of Interferon-gamma Receptors and Interferon-gamma-induced Up-regulation of Intercellular Adhesion Molecule-1 in Basal Cell Carcinoma: Decreased Expression of IFN-γR and Shedding of ICAM-1 as a Means to Escape Immune Surveillance: A. J. W. Kooy, B. Tank, V. D. Vuzevski, T. van Joost and E. P. Prens 169

Analysis of the T-Cell Micro-environment in Epstein-Barr Virus-related Post-transplantation B Lymphoproliferative Disease: S. M. Perera, J. A. Thomas, M. Burke and D. H. Crawford 177

Value of Clonality Studies of Cutaneous T Lymphocytes in the Diagnosis and Follow-up of Patients with Mycosis Fungoides: M.-H. Delfau-Larue, T. Petrella, C. Lahet, C. LeBozec, M. Bagot, F. Roudot-Thoraval, S. Dalac, J.-P. Farcet and J. Wechsler 185

Neoexpression of the Epithelial Adhesion Complex Antigens in Thyroid Tumours is Associated with Proliferation and Squamous Differentiation Markers: J. Lohi, I. Leivo, K. Owaribe, R. E. Burgeson, K. Franssila and I. Virtanen 191

The Development of Epithelial Phenotypes in the Human Fetal and Infant Breast: R. Anbazhagan, P. P. Osin, J. Bartkova, B. Nathan, E. B. Lane and B. A. Gusterson 197

Expression of E-Cadherin and α- and β-Catenins in Thymoma: C.-C. Pan, D. Ming-Tak Ho, W. York-Kwan Chen, H. Chiang, H.-J. Fahn and L.-S. Wang 207

The Retention of Abnormal Type I Procollagen and Correlated Expression of HSP 47 in Fibroblasts from a Patient with Lethal Osteogenesis Imperfecta: T. Kojima, O. Miyaishi, S. Saga, N. Ishiguro, Y. Tsutsui and H. Iwata 212

Association between Leukocyte Infiltration and Development of Glomerulosclerosis in Experimental Lupus Nephritis: C. J. Kootstra, M. Sutmuller, H. J. Baelde, E. de Heer and J. A. Bruijn 219

Book Reviews 226

Announcement 228

VOLUME 184, NUMBER 3 MARCH 1998

Editorials

Pulmonary Adenocarcinoma: Classification and Molecular Biology: F. A. Carey 229

The Development of Haematopathology Laboratories: A Possible Model for Other Pathology Services: A. S. Jack and G. J. Morgan 231

Review Article

Cytokeratins and Cell Differentiation in the Pancreas: L. Bouwens 234

Original Papers

***FHIT* and *p53* Gene Abnormalities in Bronchioloalveolar Carcinomas. Correlations with Clinicopathological Data and K-*ras* Mutations:** A. Marchetti, S. Pellegrini, G. Bertacca, F. Buttitta, P. Gaeta, V. Carnicelli, V. Nardini, P. Griseri, A. Chella, C. A. Angeletti and G. Bevilacqua 240

Expression of Bcl-2 in Lung Neuroendocrine Tumours: Comparison with p53: D-G. Wang, C. F. Johnston, J. M. Sloan and K. D. Buchanan 247

SV40-Like DNA Sequences in Pleural Mesothelioma, Bronchopulmonary Carcinoma, and Non-Malignant Pulmonary Diseases: F. Galateau-Salle, Ph. Bidet, Y. Iwatsubo, E. Gennetay, A. Renier, M. Letourneux, J. C. Pairon, S. Moritz, P. Brochard, M. C. Jaurand and F. Freymuth 252

Decreased Apoptosis in Non-Involved Tissue from Cancer-Containing Breasts: H. I. Hassan and R. A. Walker 258

$p21^{WAF1/Cip1}$ is Associated with Cyclin $D1^{CCND1}$ Expression and Tubular Differentiation but is Independent of p53 Overexpression in Human Breast Carcinoma: M. J. Rey, P. L. Fernández, P. Jares, M. Muñoz, A. Nadal, N. Peiró, I. Nayach, C. Mallofré, J. Muntané, E. Campo, J. Estapé and A. Cardesa 265

Expression of HNF-1α and HNF-1β in Various Histological Differentiations of Hepatocellular Carcinoma: W. Wang, Y. Hayashi, T. Ninomiya, K. Ohta, H. Nakabayashi, T. Tamaoki and H. Itoh 272

Induction of Proliferating Cell Nuclear Antigen and Ki-67 Expression by Cytomegalovirus Infection: J. L. Mate, A. Ariza, A. Muñoz, J. L. Molinero, D. López and J. J. Navas-Palacios 279

Correlation of T-Helper Secretory Differentiation and Types of Antigen-Presenting Cells in Squamous Intraepithelial Lesions of the Uterine Cervix: W. Al-Saleh, S. L. Giannini, N. Jacobs, M. Moutschen, J. Doyen, J. Boniver and P. Delvenne 283

Hyaluronate Binding Assay Study of Transfected CD44 V4-V7 Isoforms into the Human Gastric Carcinoma Cell Line SC-M1: H-J. Harn, K-L. Shen, C-A. Liu, L-I. Ho, L-S. Yang and K-C. Yueh 291

CD44 Expression in Normal, Hyperplastic, and Malignant Endometrium: M. Saegusa, M. Hashimura and I. Okayasu 297

Differential Expression of Collagen IV Isoforms in Experimental Glomerulosclerosis: E. C. Bergijk, I. E. Van Alderwegen, H. J. Baelde, E. de Heer, K. Funabiki, H. Miyai, P. D. Killen, R. K. Kalluri and J. A. Bruijn 307

Effects of Keratinocyte Growth Factor (KGF) on Gut Growth and Repair: R. J. Playford, T. Marchbank, N. Mandir, A. Higham, K. Meeran, M. A. Ghatei, S. R. Bloom and R. A. Goodlad 316

Lack of Inducible Nitric Oxide Synthase in Bronchial Epithelium: A Possible Mechanism of Susceptibility to Infection in Cystic Fibrosis: Q-H. Meng, D. R. Springall, A. E. Bishop K. Morgan, T. J. Evans, S. Habib, D. C. Gruenert, K. M. Gyi, M. E. Hodson, M. H. Yacoub and J. M. Polak 323

Extraction of RNA From Single Frozen Sections: G. P. Taylor, D. A. Troyer, T. A. Giambernardi and R. J. Klebe 332

Book Review 336

Letters to the Editor

bcl-2 Expression in Synovial Sarcoma: S. Pilotti, A. Mezzelani, A. Azzarelli, F. Rilke and M. A. Pierotti 337

Authors' Reply: M. Chilosi, A. P. Dei Tos, F. Facchetti, M. Lestani, C. Doglioni and G. Viale 339

Ki-ras Mutations in Adenomas from Cancer-Bearing and Cancer-Free Bowel: N. P. Zauber, M. Sabbath-Solitaire and D. T. Bishop 340

Authors' Reply: A. H. Wyllie 340

Announcements 341

VOLUME 184, NUMBER 4 APRIL 1998

Editorials

DEAD Box for the Living: U. A. O. Heinlein 345

Why is p53 Protein Stabilized in Neoplasia? Some Answers But Many More Questions!: V. Save, K. Nylander and P. Hall 348

Original Papers

Expression of the 'DEAD Box' RNA Helicase p68 is Developmentally and Growth Regulated and Correlates With Organ Differentiation/Maturation in the Fetus: R. J. Stevenson, S. J. Hamilton, D. E. MacCallum, P. A. Hall and F. V. Fuller-Pace 351

p53 Expression Above the Basal Cell Layer in Oral Mucosa is an Early Event of Malignant Transformation and has Predictive Value for Developing Oral Squamous Cell Carcinoma: I. B. Cruz, P. J. Snijders, C. J. Meijer, B. J. Braakhuis, G. B. Snow, J. M. Walboomers and I. van der Waal 360

Immunohistochemical Study of Desmosomes in Oral Squamous Cell Carcinoma: Correlation with Cytokeratin and E-Cadherin Staining, and with Tumour Behaviour: M. Shinohara, A. Hiraki, T. Ikebe, S. Nakamura, S.-I. Kurahara, K. Shirasuna and D. R. Garrod 369

Expression of Bcl-2 and p53 Correlates with the Morphology of Gastric Neoplasia: K. Kyokane, M. Ito, Y. Sato, K. Ina, T. Ando and K. Kusugami 382

Mutation of the Transforming Growth Factor-β Type II Receptor Gene in Right-Sided Colorectal Cancer: Relationship to Clinicopathological Features and Genetic Alterations: B. J. Iacopetta, J. Welch, R. Soong, A. K. House, X.-P. Zhou and R. Hamelin 390

Cyclin D1 and Associated Proteins in Mammary Ductal Carcinoma *In Situ* and Atypical Ductal Hyperplasia: C. E. Gillet, A. H. S. Lee, R. R. Millis and D. M. Barnes 396

Prognostic Significance of Nm23/NDPK Expression in Breast Carcinoma, Assessed on 10-Year Follow-Up by Automated and Quantitative Immunocytochemical Assays: C. Charpin, S. Garcia, P. Bonnier, F. Martini, L. Andrac, N. Horschowski, M.-N. Lavaut and C. Allasia 401

TFF1 Gene Expression in Human Medullary Thyroid Carcinoma: D.-G. Wang, W.-H. Liu, F. T. Lundy, K. M. Pogue, R. T. Cunningham, C. F. Johnston and K. D. Buchanan 408

Argyrophilia and Chromogranin A and B Immunostaining in Patients with Sporadic Medullary Thyroid Carcinoma. A Critical Appraisal of Their Prognostic Utility: L. Scopsi, G. Sampietro, P. Boracchi and P. Collini 414

Sustentacular Cells Occur Frequently in the Familial Form of Medullary Thyroid Carcinoma: X. Matias-Guiu, P. Machin, C. Pons, E. Lagarda, A. De Leiva and J. Prat 420

EGF-r Gene Copy Number Changes in Renal Cell Carcinoma Detected by Fluorescence *In Situ* Hybridization: H. Moch, G. Sauter, T. C. Gasser, L. Bubendorf, J. Richter, J. C. Presti, Jr, F. M. Waldman and M. J. Mihatsch 424

Tuft-to-Capsule Adhesions and Their Precursors: Differences Between the Vascular and Tubular Poles of the Human Glomerulus: I. W. Gibson, T. T. Downie, I. A. R. More and G. B. M. Lindop 430

Glomerular Injury Induced by Cationic 70-kD Staphylococcal Protein; Specific Immune Response Is Not Involved in Early Phase in Rats: Y. Fujigaki, Y. Yousif, T. Morioka, S. Batsford, A. Vogt, A. Hishida and M. Miyasaka 436

Announcements 446

Volume Contents i

Keyword Index vi

Author Index vii